

ABSTRACT OF THE DISCLOSURE

An active pixel sensor comprises a first voltage source and a second voltage source. The first voltage source is provided to charge a photoelectric element. The second voltage source is provided to supply power to a source follower transistor, a read out switch transistor, and a bias transistor. The first voltage source and the second voltage source are different, such that the noise of voltage signal on the photoelectric diode can be processed individually, and the switching noise is small and can be processed easily. Moreover, the flexibility of the voltage variation can be increased, and the two voltage sources may be individually adjusted as desired.